What we claim is:

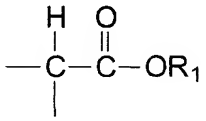
1. A process for the preparation of a vulcanised elastomeric compound comprising the steps of providing a composition which contains an elastomer, from about 5 to about 100 phr of reinforcing filler selected from the group consisting of silicas and silica-treated carbon blacks, based on the amount of elastomer, from about 0.1 to about 25 phr of sulfur and/or a sufficient amount of sulfur donor to provide the equivalent of 0.1 to 25 phr of sulfur, based on the amount of elastomer, and an effective amount of a silica dispersion agent, wherein the silica dispersion agent comprises a compound selected from the group consisting of:

a) compounds of the formula I:

$R\text{-}A\text{-}SO_3M$ (I)

wherein R is selected from C_1-C_{20} alkyl groups, C_3-C_{20} cycloalkyl groups, C_6-C_{20} aryl groups, C_7-C_{30} aralkyl groups, C_7-C_{30} alkaryl groups, C_1-C_{20} alkenyl groups, C_1-C_{20} thioalkyl groups, C_3-C_{20} cyclothioalkyl groups, C_6-C_{20} thioaryl groups, C_7-C_{30} arylthioalkyl groups, C_7-C_{30} alkylthioaryl groups;

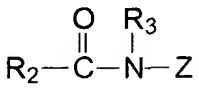
A is selected from nothing, a group –O-B, wherein B is a polyoxyalkylene group wherein the average number of oxyalkylene groups is in the range of from about 0.5 to about 30, and an ester group of the formula:



wherein R_1 is a C_1-C_6 hydrocarbyl group; and

M is selected from hydrogen, and a cation selected from an alkali metal, an alkaline earth metal, ammonium, alkyl-substituted ammonium, and an alkanolamine group having 1 to 3 alkanol groups, wherein each alkanol group has 2 or 3 carbon atoms;

b) a polyhydroxy fatty acid amide of the formula II:

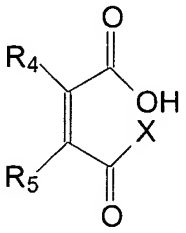


(II)

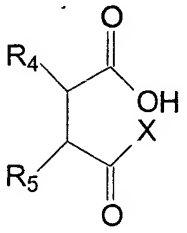
wherein R_2 is selected from hydrogen, C_1-C_{10} hydrocarbyl, 2-hydroxy ethyl, 2-hydroxy propyl, methoxy ethyl, methoxy propyl or a mixture thereof, R_3 is selected

from C_1-C_{20} alkyl groups, C_3-C_{20} cycloalkyl groups, C_6-C_{20} aryl groups, C_7-C_{30} aralkyl groups, C_7-C_{30} alkaryl groups, C_1-C_{20} alkenyl groups, C_1-C_{20} thioalkyl groups, C_3-C_{20} cyclothioalkyl groups, C_6-C_{20} thioaryl groups, C_7-C_{30} arylthioalkyl groups, and C_7-C_{30} alkylthioaryl groups; and Z is a polyhydroxyhydrocarbyl having a linear hydrocarbyl chain with at least three hydroxy groups directly connected to the linear hydrocarbyl chain, or an alkoxylated polyhydroxyhydrocarbyl having a linear hydrocarbyl chain with at least three hydroxy groups directly connected to the linear hydrocarbyl chain; and

d) a compound of the formulae III and IV:



(III)



(IV)

wherein R_4 and R_5 are independently selected from the group consisting of hydrogen, C_1-C_{20} alkyl groups, C_3-C_{20} cycloalkyl groups, C_6-C_{20} aryl groups, C_7-C_{30} aralkyl groups, C_7-C_{30} alkaryl groups, C_1-C_{20} alkenyl groups, and X is selected from the group consisting of –OH and –NH-R_6, wherein R_6 is selected from the group consisting of hydrogen, C_1-C_{20} alkyl groups, C_3-C_{20} cycloalkyl groups, C_6-C_{20} aryl groups, C_7-C_{30} aralkyl groups, C_7-C_{30} alkaryl groups, C_1-C_{20} alkenyl groups; and vulcanising the composition.

2. The process according to claim 1, wherein silica dispersion agent is present in an amount in the range of 0.5 to 10 phr.

3. The process according to claim 2, wherein the silica dispersion agent comprises a compound selected from the group consisting of dodecyl benzene sulfonic acid and its salts; dodecyl thiosulfonic acid and its salts; 2, 3, 4, 5, 6 pentahydroxy hexanoic acid octadecylamide; 2,3, 4, 5, 6 pentahydroxy hexanoic acid octylamide; 2,3,4,5,6 pentahydroxy hexanoic acid dodecylamide; N-dodecyl maleic acid; and N-octyldodecyl maleic acid.

4. The process according to claim 2, wherein the silica dispersion agent comprises a compound selected from the group consisting of dodecyl benzene sulfonic acid, dodecyl benzene sulfonic acid sodium salt, dodecyl thiosulfonic acid, and dodecyl thiosulfonic acid sodium salt.

5. The process according to claim 2, wherein the silica dispersion agent comprises dodecyl benzene sulfonic acid.

6. The process according to claim 1, wherein the rubber is selected from the group consisting of styrene-butadiene rubber, butadiene rubber, isoprene rubber, and mixtures thereof.

7. The process according to claim 1 wherein the reinforcing filler is present in an amount of 20 to 100 phr.

8. An article of manufacture comprising a vulcanized rubber article made by the process of claim 1.

9. An article of manufacture comprising a vulcanised rubber article made by the process of claim 4.

10. An article of manufacture comprising a tire, wherein at least a tread of the tire comprises the rubber vulcanizate obtained by the process according to claim 1.

11. An article of manufacture comprising a tire, wherein at least a tread of the tire comprises a rubber vulcanizate obtained by the process according to claim 3.

12. An article of manufacture comprising a tire, wherein at least a tread of the tire comprises a rubber vulcanizate obtained by the process according to claim 4.

13. An article of manufacture comprising a tire, wherein at least a tread of the tire comprises a rubber vulcanizate obtained by the process according to claim 5.

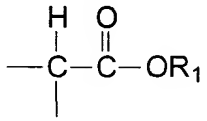
14. A sulfur vulcanized, silica filled rubber composition, comprising a compound selected from the group consisting of:

a) compounds of the formula I:

$R\text{-}A\text{-}SO_3M$ (I)

wherein R is selected from C_1-C_{20} alkyl groups, C_3-C_{20} cycloalkyl groups, C_6-C_{20} aryl groups, C_7-C_{30} aralkyl groups, C_7-C_{30} alkaryl groups, C_1-C_{20} alkenyl groups, C_1-C_{20} thioalkyl groups, C_3-C_{20} cyclothioalkyl groups, C_6-C_{20} thioaryl groups, C_7-C_{30} arylthioalkyl groups, C_7-C_{30} alkylthioaryl groups;

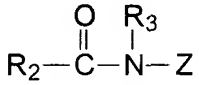
A is selected from nothing, a group –O-B, wherein B is a polyoxyalkylene group wherein the average number of oxyalkylene groups is in the range of from about 0.5 to about 30, and an ester group of the formula:



wherein R_1 is a C_1-C_6 hydrocarbyl group; and

M is selected from hydrogen, and a cation selected from an alkali metal, an alkaline earth metal, ammonium, alkyl-substituted ammonium, and an alkanolamine group having 1 to 3 alkanol groups, wherein each alkanol group has 2 or 3 carbon atoms;

b) a polyhydroxy fatty acid amide of the formula II:

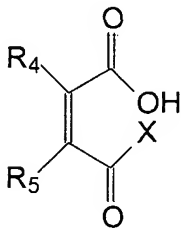


(II)

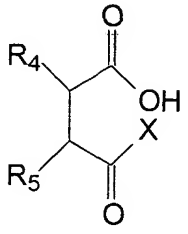
wherein R_2 is selected from hydrogen, C_1-C_{10} hydrocarbyl, 2-hydroxy ethyl, 2-hydroxy propyl, methoxy ethyl, methoxy propyl or a mixture thereof, R_3 is selected from C_1-C_{20} alkyl groups, C_3-C_{20} cycloalkyl groups, C_6-C_{20} aryl groups, C_7-C_{30} aralkyl groups, C_7-C_{30} alkaryl groups, C_1-C_{20} alkenyl groups, C_1-C_{20} thioalkyl groups, C_3-C_{20} cyclothioalkyl groups, C_6-C_{20} thioaryl groups, C_7-C_{30} arylthioalkyl groups, and C_7-C_{30} alkylthioaryl groups; and Z is a polyhydroxyhydrocarbyl having a linear hydrocarbyl chain with at least three hydroxy groups directly connected to the linear hydrocarbyl chain, or an alkoxylated polyhydroxyhydrocarbyl having a linear

hydrocarbyl chain with at least three hydroxy groups directly connected to the linear hydrocarbyl chain; and

c) a compound of the formulae III and IV:



(III)



(IV)

wherein R_4 and R_5 are independently selected from the group consisting of hydrogen, C_1-C_{20} alkyl groups, C_3-C_{20} cycloalkyl groups, C_6-C_{20} aryl groups, C_7-C_{30} aralkyl groups, C_7-C_{30} alkaryl groups, C_1-C_{20} alkenyl groups, and X is selected from the group consisting of –OH and –NH-R_6, wherein R_6 is selected from the group consisting of hydrogen, C_1-C_{20} alkyl groups, C_3-C_{20} cycloalkyl groups, C_6-C_{20} aryl groups, C_7-C_{30} aralkyl groups, C_7-C_{30} alkaryl groups, C_1-C_{20} alkenyl groups; as a silica dispersion agent.

15. A sulfur vulcanized, silica filled rubber composition as claimed in claim 14, wherein the silica dispersion agent comprises a compound selected from the group consisting of dodecyl benzene sulfonic acid and its salts; dodecyl thiosulfonic acid and its salts; 2, 3, 4, 5, 6 pentahydroxy hexanoic acid octadecylamide; 2,3, 4, 5, 6 pentahydroxy hexanoic acid octylamide; 2,3,4,5,6 pentahydroxy hexanoic acid dodecylamide; N-dodecyl maleic acid; and N-octyldodecyl maleic acid.

16. A sulfur vulcanised, silica filled rubber composition as claimed in claim 14, wherein the silica dispersion agent comprises a compound selected from the group consisting of dodecyl benzene sulfonic acid, dodecyl benzene sulfonic acid sodium salt, dodecyl thiosulfonic acid, and dodecyl thiosulfonic acid sodium salt.

17. A sulfur vulcanised, silica filled rubber composition as claimed in claim 14, wherein the silica dispersion agent comprises dodecyl benzene sulfonic acid.

18. A vulcanized rubber composition, which comprises the vulcanization reaction product of:

A) 100 parts of at least one natural or synthetic rubber or blends;

B) 0.1 to 25 phr of sulfur and/or a sufficient amount of sulfur donor to provide an equivalent of 0.1 to 25 parts by weight of sulfur;

C) 0 to 5 phr of a vulcanization accelerator;

D) 0 to 5 phr of antidegradant;

E) 10-100 parts by weight of at least one reinforcing filler selected from the group consisting of silicas and silica-treated carbon blacks; and

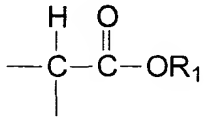
F) 0.1 to 25 parts by weight of at least one silica dispersion agent selected from the group consisting of:

a) compounds of the formula I:

$R\text{-}A\text{-}SO_3M$ (I)

wherein R is selected from C_1-C_{20} alkyl groups, C_3-C_{20} cycloalkyl groups, C_6-C_{20} aryl groups, C_7-C_{30} aralkyl groups, C_7-C_{30} alkaryl groups, C_1-C_{20} alkenyl groups, C_1-C_{20} thioalkyl groups, C_3-C_{20} cyclothioalkyl groups, C_6-C_{20} thioaryl groups, C_7-C_{30} arylthioalkyl groups, C_7-C_{30} alkylthioaryl groups;

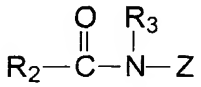
A is selected from nothing, a group –O-B, wherein B is a polyoxyalkylene group wherein the average number of oxyalkylene groups is in the range of from about 0.5 to about 30, and an ester group of the formula:



wherein R_1 is a C_1-C_6 hydrocarbyl group; and

M is selected from hydrogen, and a cation selected from an alkali metal, an alkaline earth metal, ammonium, alkyl-substituted ammonium, and an alkanolamine group having 1 to 3 alkanol groups, wherein each alkanol group has 2 or 3 carbon atoms;

b) a polyhydroxy fatty acid amide of the formula II:

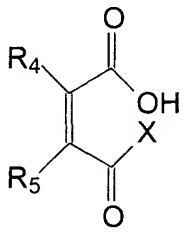


(II)

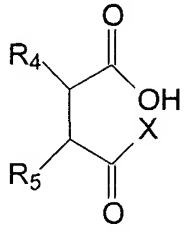
wherein R_2 is selected from hydrogen, C_1-C_{10} hydrocarbyl, 2-hydroxy ethyl, 2-hydroxy propyl, methoxy ethyl, methoxy propyl or a mixture thereof, R_3 is selected from C_1-C_{20} alkyl groups, C_3-C_{20} cycloalkyl groups, C_6-C_{20} aryl groups, C_7-C_{30}

aralkyl groups, C_7-C_{30} alkaryl groups, C_1-C_{20} alkenyl groups, C_1-C_{20} thioalkyl groups, C_3-C_{20} cyclothioalkyl groups, C_6-C_{20} thioaryl groups, C_7-C_{30} arylthioalkyl groups, and C_7-C_{30} alkylthioaryl groups; and Z is a polyhydroxyhydrocarbyl having a linear hydrocarbyl chain with at least three hydroxy groups directly connected to the linear hydrocarbyl chain, or an alkoxylated polyhydroxyhydrocarbyl having a linear hydrocarbyl chain with at least three hydroxy groups directly connected to the linear hydrocarbyl chain; and

c) a compound of the formulae III and IV:



(III)



(IV)

wherein R_4 and R_5 are independently selected from the group consisting of hydrogen, C_1-C_{20} alkyl groups, C_3-C_{20} cycloalkyl groups, C_6-C_{20} aryl groups, C_7-C_{30} aralkyl groups, C_7-C_{30} alkaryl groups, C_1-C_{20} alkenyl groups, and X is selected from the group consisting of –OH and –NH-R_6, wherein R_6 is selected from the group consisting of hydrogen, C_1-C_{20} alkyl groups, C_3-C_{20} cycloalkyl groups, C_6-C_{20} aryl groups, C_7-C_{30} aralkyl groups, C_7-C_{30} alkaryl groups, C_1-C_{20} alkenyl groups.

19. A vulcanized rubber composition as claimed in claim 18, wherein the silica dispersion agent comprises a compound selected from the group consisting of dodecyl benzene sulfonic acid and its salts; dodecyl thiosulfonic acid and its salts; 2, 3, 4, 5, 6 pentahydroxy hexanoic acid octadecylamide; 2,3, 4, 5, 6 pentahydroxy hexanoic acid octylamide; 2,3,4,5,6 pentahydroxy hexanoic acid dodecylamide; N-dodecyl maleic acid; and N-octyldodecyl maleic acid.

20. A vulcanised rubber composition as claimed in claim 19, wherein the silica dispersion agent comprises a compound selected from the group consisting of dodecyl benzene sulfonic acid, dodecyl benzene sulfonic acid sodium salt, dodecyl thiosulfonic acid, and dodecyl thiosulfonic acid sodium salt.